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Appendix A: Specific Deficiencies Listings

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I. Executive Summary

Overview:

The Levelock Clinic, built in 1970's, is a 960 SF clinic on the first floor of a multiuse two story metal building containing the fire truck storage, and second floor tribal government offices. It is a very typical metal building design for vehicle storage and industrial use, but built with the clinic and office in one side. A wood frame open, unfinished vestibule has been added to the metal building. A long exterior, uncovered, non-code compliant metal stair goes to the second floor offices. There is also a non-compliant interior stair from the fire truck storage to the second floor offices via a storage mezzanine. The arrangement is difficult with the small waiting essentially directly to the outside, and unfinished. There is a single exam room off of the central hall/circulation through the office areas. There is little privacy and the central larger hall/circulation is very poorly utilized. The original second exam room is used as an TDY, lab, kitchen, storage, supply storage room. There is a toilet room, medical supply/pharmacy room, janitor room/storage, and no mechanical room. The entire facility is heated from a central mechanical room off of the fire truck garage. The clinic is small for the current size of the village, 122 residents.

Renovation/Upgrade and Addition:

The Clinic will require a 1040 SF addition to accommodate the current need and Alaska Rural Primary Care Facility space guidelines. This addition is not possible on the existing site. The addition would require considerable digging into the hill and major site changes and substantial renovation of the existing clinic. A new site will need to be selected to accommodate a new clinic. The cost of renovation and addition will far exceed the cost of a new clinic facility.

New Clinic:

The community has proposed that a new larger 2000 SF Denali Commission Medium Clinic can be constructed on a new site, adjacent to the current recreation hall. We have included a preliminary site plan chosen by the tribal council.

The site has existing city utilities available and can be served easily. The Tribal President of Levelock, Sam Wassillie, has confirmed the chosen site and will have all documentation completed in the next couple months.

The community has completely supported this effort and have met extensively to assist in new site issues and to resolve any site considerations of the three options presented.

II. General Information

A. The Purpose of the Report and Assessment Process:

ANTHC has entered into a cooperative agreement with the Denali Commission to provide management of the small clinic program under the Alaska Rural Primary Care Facility assessment, planning, design and construction. Over 200 clinics will be inspected through the course of the program. The purpose of the Code and Condition survey report is to validate the data provided by the community in the Alaska Rural Primary Care Facility Needs Assessment and to provide each community with a uniform standard of evaluation for comparison with other communities to determine the relative need between the communities of Alaska for funding assistance for the construction of new or remodeled clinic facilities. The information provided in this report is one component of the scoring for the small clinic RFP that the Denali Commission sent to communities in priority Groups 1 and 2. The information gathered will be tabulated and analyzed according to a set of fixed criteria that should yield a priority list for funding. Additionally, the relative costs of new construction vs. remodel/addition will be evaluated to determine the most efficient means to bring the clinics up to a uniform standard of program and construction quality.

A team of professional Architects and Engineers traveled to the site and completed a detailed Field Report that was reviewed by all parties. Subsequently, the team completed a draft and then final report of the facility condition.

B. Assessment Team:

Kelly Liesman, ANTHC organized the assessment team. The team for this site visit was Gerald L. (Jerry) Winchester, Architect, Winchester Alaska, Inc.; Tom Humphrey, PE, Jernstrom Engineering, and Kelly Liesman, ANTHC. Team members who assisted in preparation of report from information gathered included members of the field team above and Ben Oien PE, Structural Engineer; Tom Humphrey, PE, Electrical Engineer; Carl Bassler PE, Civil Engineer; and Estimation Inc.

C. Report Format:

The format adopted is a modified "Deep Look" format, a facilities investigation and condition report used by both ANTHC and the Public Health Service, in maintaining an ongoing database of facilities throughout the country. Facilities are evaluated with respect to the requirements of the governing building codes and design guidelines. Building code compliance, general facility condition, and program needs have been evaluated. The written report includes a floor plan of the clinic, site plan as available, and new plans for renovation/upgrade or completely new clinics. Additional information was gathered during the field visit which includes a detailed Field Report and building condition checklist, sketches of building construction details, investigations of potential sites for new or replacement clinics, and proposed plans for village utility upgrades. This information is available for viewing at ANTHC's Anchorage offices and will be held for reference.

D. The Site Investigation:

On January 22, 2001, the team flew to the site and made observations, took photos, and discussed the needs with on-site personnel for the facility. Approximately three-four hours was spent on site, with sufficient time to investigate foundations, structure, condition, mechanical and electrical systems, and to interview the staff to assess current and projected health care needs.

Interviews were conducted with the Sam Wassillie, Village Council President; Agelina Chukwak, CHP; Dave Powers, MD from Dillingham Hospital on intinerant visit, Janice McDowell, CHP. The staff provided information on the existing building, site, and utilities. These interviews provided clear understanding of the needs of the village, the clinic facility, and the users of the facility.

The Levelock Village Council President has reviewed the use of a Denali Commission Medium Health Clinic design adapted to the Levelock Site. He has agreed to proceed with final approvals of the site.

III. Clinic Inspection Summary

A. Community Information:

Population: 122 (2000 Census)

Unincorporated, Lake & Peninsula Borough, Lake & Peninsula School District, Bristol Bay Native Corporation.

Location:

Levelock is located on the west bank of the Kvichak River, 10 miles inland from Kvichak Bay. It lies 40 miles north of Naknek and 278 air miles southwest of Anchorage. It is located near the Alagnak Wild and Scenic River Corridor. It lies at approximately 59d 07m N Latitude, 156d 51m W Longitude. (Sec. 28, T012S, R045W, Seward Meridian.) Levelock is located in the Kvichak Recording District. The area encompasses 14.5 sq. miles of land and 0 sq. miles of water. Levelock is in a climatic transition zone; it is primarily maritime, although the continental climate also affects the weather. Average summer temperatures range from 30 to 66; winter temperatures average from 4 to 30. Annual rainfall is 26 inches, with 70 inches of snow. Fog and low clouds are common during the summer. The River is ice-free from June through mid-November.

History:

Early Russian explorers reported the presence of Levelock, which they called "Kvichak." The smallpox epidemic of 1837 killed more than half of the residents of the Bristol Bay region, and left entire villages abandoned. Kvichak was mentioned during the 1890 census, although the population was not measured. A measles epidemic hit the region in 1900. A 1908 survey of Russian missions identified "Lovelock's Mission" at this site. The worldwide influenza epidemic in 1918-19 again devastated area villages. Koggiung Packers operated a cannery at Levelock in 1925-26. A large fire, attributed to a cannery worker's careless cigarette, threatened the entire village in 1926, but residents dug fire lines which saved their homes. The fire depleted the scarce wood resources used to heat homes. A second cannery operated from 1928-29. In 1930 the first school was built, and a post office was established in 1939. By this time, families had converted their homes to oil heat. Moose first appeared in the area in the 1930s. During the early 1950s, another cannery was in operation.

Culture:

Levelock is a mixed Aleut, Eskimo and Indian village. Commercial fishing and subsistence activities are the focus of the community. Sharing is a way of life in this village, and no one goes hungry for lack of ability to hunt or fish.

Economy:

Fourteen residents hold commercial fishing permits. Most travel to Naknek to fish or work in the canneries during the summer season. Several seasonal lodges operate in the area. The community relies upon subsistence activities for a large portion of its diet. Salmon, trout, moose, caribou and berries are harvested.

Facilities:

Levelock homes and facilities use individual water wells and septic systems, installed in 1981. The school operates its own well water treatment facility. A washeteria is available, operated by the Village Council. The Village Council also provides refuse collection services between May and September, and septic pumping. A new landfill is under construction.

Transportation:

Levelock is accessible by air and water. In the winter, trails to surrounding villages are used. The State owns a 1,900' lighted gravel runway and 1,800' crosswind runway in Levelock. Scheduled and charter flights are available. Bulk goods are delivered by barge. A 110' dock and beach unloading area are available. The dock needs improvements to enable barge landings.

Climate:

Levelock is in a climatic transition zone; it is primarily maritime, although the continental climate also affects the weather. Average summer temperatures range from 30 to 66; winter temperatures average from 4 to 30. Annual rainfall is 26 inches, with 70 inches of snow. Fog and low clouds are common during the summer. The River is ice-free from June through mid-November.

B. General Clinic Information:

Physical Plant Information:

The existing Levelock Health Clinic completed in 1990's occupies 756 sq. ft. (See attached Plan) It is one of the small size clinics constructed during the last twenty years and existing in the BBAHC program area. It has small a waiting room, toilet, janitor/supply room, exam room, office work area, a medical supply/pharmacy storage area, and no mechanical room. It has a front entry with no vestibule and does not allow stretcher access. The rear entry is through the ambulance/fire truck garage. The clinic is served with water and sewer from existing water and wastewater systems for the village. Sinks are provided in the two exam rooms, toilet room, and the janitor room.

Clinic program usage information:

We do not have the patient records that indicate clinic usage and area available from the Bristol Bay Area Health Corporations. There are two full time and one part time health aides. The office space provided is entirely inadequate as it has all office functions, travel, files, and use by all health aides. The room contains a desk, copier, fax, and two chairs and other equipment and supplies.

Community Program Sheet:

The community program sheet P1.0 Services has been included if available on the next page. These sheets were completed during the Code and Condition Survey by ANTHC representative.

C. Program Deficiency Narrative:

1. Space Requirements and Deficiencies:

Space Comparison Matrix - Current Levelock Actual SF to Denali Commission Medium Clinic

Alaska Rural Primary Care Facility

Purpose / Activity	Current Clinic			Medium clinic			Difference		
	Actual Net SF			ARPCF SF					
		No.	Net Area (SF)	Size	No.	Net Area (SF)	Size	No.	Net Area (SF)
Arctic Entries			0	50	2	100			100
Waiting/Recep/Closet	144	1	144	150	1	150			6
Trauma/Telemed/Exam			0	200	1	200			200
Office/Exam	143	1	143	150	1	150			7
Admin./Records	147, 107	2	254	110	1	110			-144
Pharmacy/Lab			0	80	1	80			80
Portable X-ray			0			0			0
Specialty Clinic/Health Ed/Conf			0	150	1	150			150
Patient Holding/ Sleeping Room	143	1	143	80	1	80			-63
Storage	54	1	54	100	1	100			46
HC Toilet	54	1	54	60	2	120			66
Janitor's Closet	61	1	61	30	1	30			-31
Subtotal Net Area			853			1270			417
Circulation & Net/Gross Conv. @ 45%			107			572			465
Subtotal (GSF)			960			1842			882
Mechanical Space @ 8%						147			147
Total Heated Space			960			1989			1029
Morgue (unheated enclosed space)				30	1	30			30
Ext. Ramps, Stairs, Loading	As Required			As Required			As Required		

- Overall space deficiencies: The size of the facility is about 1040 sf short of the ARPCF space requirements.
- Specific room deficiencies: There is no vestibule, small waiting space, small toilet, no bath space, no TDY, minimal office and storage space, and. This in combination with other small spaces leaves the clinic very program deficient.
- Other size issues: Mechanical room is non-existent, and there are no unheated or exterior storage areas, and circulation is through larger open central space to get to other spaces is also a problem and inefficient use of space.

2. Building Issues:

- Arctic Entries - The main entry is not accessible for ADA and is not wide enough for easy access with a gurney into the room. It has storage of needed materials that cannot be stored inside the facility due to lack of room. The rear entry does not meet ADA or standards for gurney access and is through the fire truck garage and main fire wall.

- b. Waiting / Reception –The waiting area contains chairs and has equipment and other items stored in the room.
- c. Trauma/Telemed/Exam – There is no trauma room that meets all aspects or requirements. There is one room that is used for exam or some combination.
- d. Office / Exam – There an exam room that is now used as an kithchen, TDY, and lab space. It is crowded with equipment. There was no capability of putting a patient in a gurney in the rooms.
- e. Administration / Records – There is one open office room space used for all administrative, records, scheduling, and other functions. It is very small and with no privacy.
- f. Pharmacy / Lab – There is not Pharmacy and medicines are stored in locked cabinets in the medical supply room.
- g. Specialty Clinic / Health Education / Conference - This function is completed in the exam rooms. There is no special area.
- h. Patient Holding / Sleeping Room – There is no sleeping room and a rollaway bed for itinerant staff in the secondary lab, kitchen room. The exiting does not meet code with window egress.
- i. Storage – Storage is inadequate and is an impediment to safety and the operation of this clinic. There is a lack of adequate storage for needed medical supplies, files, and equipment in this facility. There is minimal storage and mostly it is in the exam rooms. There is storage in main circulation area, janitors, and garage rooms.
- j. HC Toilet Facilities – A single toilet room serves patients and clinic staff. Toilet room did not meet all of the ADA or UPC requirements. Entry door width was too narrow, and the toilet and sink lacked sufficient clearances and were of incorrect fixture type.
- k. Janitors Room – There is no exhaust air for the janitor's room as required by code. This room is used extensively as storage.
- l. Mechanical\ room – The room is no mechanical room, building is heated from mechanical from for the entire building off of the fire truck space.
- m. Ancillary Rooms – There are no ancillary rooms as all space is used to maximum capacity including storage rooms, exam rooms, toilet rooms, office, waiting room, corridors, and vestibules.

3. Functional Design Issues

This facility is functionally inadequate for its intended use. The spaces do not meet the functional size requirement, access is non-compliant, and the ability to perform required medical functions within the facility is severely hampered by lack of storage.

4. Health Program Issues

- a. Vestibule and comfort:
The front door of the clinic is directly to the exterior, which is inadequate to defer the heat loss. There is no ADA access or proper gurney access. The exam rooms are cold every time the door is opened and the cold air migrates into the clinic where patients are being attended.
- b. Medical/Infectious Waste
This is being handled in a very basic method and is hampered by the small non-functional facility.
- c. Infection Control
The facility is in very poor shape, floors are worn, base materials are non existent, all piping has been moved to exposed condition creating impossible cleaning situations in all corners, and radiator areas. Clean ability is hampered in the waiting with partially complete materials.
- d. Insect and Rodent Control
None noted or investigated
- e. Housekeeping
The difficulty in cleaning and housekeeping in such a congested facility is understandable and is being done at the best level currently possible.

5. Utilities

- a. Water Supply
The water is provided by the existing well for each property in village.
- b. Sewage Disposal
Sewer system is provided by the septic system on each building in village.
- c. Electricity
See Electrical Narrative.
- d. Telephone
A single phone line services the clinic and is inadequate for current needs.
- e. Fuel Oil
The fuel system is not adequate with some leaking having occurred around the existing above ground tank. There is not protection or containment for possible spilling.

D. Architectural / Structural Condition

1. Building Construction:

- a. Floor Construction:

The floor is wood joist system on mud sills for the clinic. The fire truck storage is on concrete and is 14 inches lower than clinic. The floor is likely seriously deteriorating. The first floor is very cold with no insulation. The second floor wood joist system has no insulation and no sound dampening from upstairs. There is no sound attenuation and privacy from offices above.

- b. Exterior Wall Construction:
The walls are 2x6 furring over the metal building system with R-13 batt insulation. The sheathing is metal siding with poor vapor barrier and gypsum board on the interior.
- c. Roof Construction:
The roof is a full-span metal beams with metal girts, spray on insulation between metal girts, and gypboard finish. The insulation is R-11 to 13 at best and there is no ventilation. This is minimal insulation and it should be upgraded to R-60. Additional ventilation is also a requirement for energy conservation.
- d. Exterior Doors:
The exterior doors are residential hollow metal and do not perform well under this heavy usage. They need replacement.
- e. Exterior Windows:
Windows are of thermo-pane wood casement windows; they are in poor shape and need resealing. They do not meet egress codes and are too high.
- f. Exterior Decks, Stairs, and Ramps
There are no Arctic entries. The facility is essentially at grade and does not require ramps. The interior stairs rise and run do not meet code. The upstairs requires all new exterior and interior stairs, railings and landings.

2. Interior Construction:

- a. Flooring:
The flooring is Sheet Vinyl over plywood floor and in poor shape. It needs replacement with numerous cracks showing through the floor from wear.
- b. Walls:
The walls are of 2x4 wood construction, with no sound insulation. The type of wall construction does not provide for patient privacy in any way. The finish is gypsum wallboard and in need of repair and repaint. There are cracks in wallboard due to settlement and shifting building and leaks in the roof.
- c. Ceilings:
The ceilings are gypsum wallboard as well and needing repair and repaint due to cracking as well.
- d. Interior doors:
The interior walls are of hollow core wood construction that does not provide durability and sound attenuation. All doors need adjusting and also some hardware is missing. There has been floor shifting and two of the doors do not close properly.

- e. Casework:
The upper casework is minimal and the lower casework is of poor construction. Plastic laminate tops that do not fit to walls and there is some damaged areas. The facility needs full replacement of casework.
- f. Furnishings:
The furnishings are very old and worn. There are old chairs in the waiting room and a variety of mismatched and old desks, chairs, and tables for other use. The exam tables are older as well.
- g. Insulation:

Floor Insulation		R-0
Wall Insulation	R-13	
Attic/Roof Insulation		R-13
Attic Ventilation		NONE
- h. Tightness of Construction:
The building is poor overall construction, with many leaks in construction system at doors, floor, roof, and sills. Lack of vestibules also makes heating difficult.
- i. Arctic Design:
The vestibules are non-existent, orientation is OK, and siting of the clinic is good.

3. Structural

- a. Foundations
The foundation is concrete over a gravel pad and is in good structural condition. Some settlement has occurred with stress cracks in concrete.
- b. Walls and Roof:
The walls and roof seem in relatively stable and adequate condition.
- c. Stairs, Landings, and Ramps
The internal stairs are not adequate and need of replacement.

E. Mechanical Condition

1. Heating System

- a. Fuel Storage and Distribution
The clinic's heating fuel oil storage tank is located adjacent to the building and not a minimum of 5 ft. as required by code. The 1,100-gallon storage tank does not have the proper venting, piping, or valving as required by code. Nor does the tank meet DEC requirements for spill protection and double wall construction.
- b. Boiler
A single residential grade, oil-fired boiler provides heating for the entire clinic. The boiler is in fair shape with missing controls and systems that are required by code. There is severe corrosion on the boiler stack and the vent assembly is in poor condition. Routing the boiler stack outside and up the building is causing drafting problems due to lower stack

temperatures in the uninsulated chimney. There is no combustion air openings for the boiler which is against code. There are no additional heaters in the clinic to assist with heating.

c. Heat Distribution System

The piping has been routed in the clinic to avoid freezing and is exposed throughout the facility. Pipe insulation has been added which does not meet flame spread and smoke-developed ratings. The baseboard enclosures are all in fair condition.

2. Ventilation System

a. System

There is no mechanical ventilation system. Ventilation is by operable windows. The windows do not open easily and as such do not provide effective ventilation. The waiting room does not have an operable window and as such has no ventilation.

b. Exhaust Air

A ceiling mounted exhaust fan services the toilet room. This fan is not ducted outside, but is ducted into the attic space. The janitor's room was not provided with an exhaust fan.

3. Plumbing System

a. Water System

The water system plumbing is typical $\frac{1}{2}$ " and $\frac{3}{4}$ " copper distribution piping to the clinic exam sinks and toilet fixtures. A well provides the water needs of the clinic. The clinic has a water softener system, but the quality and smell of the water indicates that the softener is not working.

b. Sewer System

A septic tank and drain field system provides the sewer needs of the clinic.

c. Fixtures

The toilet room plumbing fixtures are not ADA approved or UPC code compliant for barrier free access. The janitor's sink is not provided with a code required vacuum breaker.

d. Water Heater

The domestic water heater is a coil within the boiler. The water heater uses clinic heating water to heat the domestic water. The equipment is in fair condition. The domestic hot water temperature is in excess of the code required temperature of 120 F.

F. Electrical Condition

1. Electrical Service

- a. Levelock Clinic is located within a multipurpose building. Electrical service is an overhead connection to the building with 120/240V single-phase power from the serving utility power line (Levelock Electric Coop.). The building has 4 meters serving the Clinic, Village Offices, Shop and Freezer. A typical bill for December 2001 indicated usage of 689 kw-hrs for the clinic, 938 kw-hrs for the office, 93 kw-hrs for the shop, and 200 kw-hrs for the freezer. The current rate for this building is 28.48 cents per kw-hr.

- b. The 4 meter stack is rated 400A 120/240V 1 ph 3w, and is a Sq.D. MP MeterPak with 125/2 A max. branch breakers. Each feeder is 100/2A circuit breaker.
- c. The service riser is 2" C with (3)#2/0 Al conductors. The grounding conductor is #6 solid copper run exposed down to presumed ground rod location.

2. Power Distribution

- a. There are three panels in the building. Panels A and B are located in the laundry room immediately backed up the meter stack. Panel C is located upstairs in the village offices. The freezer is added on the end of the building and was locked.
- b. The feeder to Panel A is 3#2 Cu with #6 solid Cu ground. The feeder to Panel B is similar. The feeder to Panel C (offices) is 3#1 Al with Ground USE cable.
- c. Panels A and B are mounted side by side in the laundry. Access to these panels is blocked by a dryer. Adequate clearance is not provided. NEC110-26(b).
- d. Panels A and B have multiple problems. Lots of unsealed KO holes. White wires run to hots, taped black in places but the tape is coming off. Conduits overfilled with conductors. No directory. Covers poorly fitting with most screws missing. Neutral not marked with white tape. Panel directories not complete.
- e. Based on casual inspection it appears that the panels may serve up the loads differently then stated. There is no panel actually dedicated to the clinic space. There is one for the laundry "A", there is one that buildings essential loads – furnace, heater, well "B", and "C" is located up in the office space. The clinic circuits probably come from one or more of these panels.
- f. Non-metallic sheathed cable (Romex) is used for the branch circuit wiring. Patient care areas need to be wired in metal raceways. NEC 517-13(a) and (b).

3. Grounding System

Grounding of Electrical Systems

- a. Metal enclosures for service conductors and equipment are not grounded. NEC 250-80.

Grounding of Electrical Equipment

- b. The antenna is not grounded. NEC 820-40(d)
- c. The metallic piping systems are not bonded. The interior metal water piping system shall be bonded (NEC 250-104)
- d. The 40 amp 2 pole dryer circuit from Panel B is not bonded properly.

4. Exterior Elements

- a. A MH yard light illuminates the clinic entrance end of the building. However there is not lighting within the windbreak enclosing the entrance. Lighting is inadequate for ADA coverage.

5. Wiring devices
 - a. Receptacles are residential grounding type, not hospital grade. NEC 517-18(b)
 - b. Several receptacles did not pass test. One is marked do not use messes up phone line. Several j-box covers are missing.
 - c. There are an inadequate number of receptacles. NEC 210-52(a) 210-60.
 - d. Some locations require GFCI receptacles or breakers and do not have them.
6. Lighting
 - a. Foot-candle measurements were taken and lighting levels are generally adequate. However sunlight from the windows was a contributing factor. Removed and or burned out lamps should be replaced. Exam rooms and office spaces ranged about 50FC and should have exceed 70FC.
 - b. The lighting is predominately 1x4 fluorescent T12 (2) lamp surface wrap troffers. These fixtures should be upgraded to T8 with electronic ballasts for energy efficiency.
7. Emergency System
 - a. Emergency Exit signs appeared to be non-functioning or expired self-luminous types. Requirement: Means of Egress Identification "Exit Signs" Connected to emergency electrical system providing 1-1/2 hours of continuous illumination. (UBC 1003.2.8)
 - b. Egress Lighting. There is one battery powered emergency light for task illumination at the end of the hallway. Requirement: Means of Egress Illumination. To an intensity of not less then 1FC. (UBC 1003.2.9)
8. Fire Alarm System
 - a. Battery operated smoke detectors (4) are installed throughout the building. Most are not functional. Smoke detectors should be interconnected and attached to building power. There should be audio/visual annunciators. ADA 4.28 and UBC 1105.4.5 Units and sleeping areas require visual alarm. (ADA 4.28.4) People do spend the night in this clinic. Restrooms, general usage areas, hallways, lobbies require audible and visual alarms (ADA 4.28) Also UBC 1105.4.5)
9. Telecommunication
 - a. Telephone service enters a weatherproof protection test block on the exterior of the building. Telephone service is provided by Bristol Bay Telephone.
 - b. There in no telephone switch. There are outlets in the office and the exam rooms.
 - c. The building is not wired for Computer local area network LAN Cat 5. (EIA/TIA)
10. Energy Management

- a. Several areas have inefficient incandescent lighting. Many areas could use occupancy sensors for energy management. Exterior lighting could use photocell control.

G. Civil / Utility Condition

1. Location of building
 - a. Patient Access
Located in the relative center of the village for ease of access and seems to work fine. It is on the road to the airport which is an advantage.
 - b. Service Access
Road access is provided to front and rear ambulance entry. Ramps and stairs are not required other than from garage.
 - c. Other Considerations:
The facility is located on a sloping site with high bank on the rear with mixed use and does not easily allow for expansion. The property lines are not close to the building and need investigation to expand.
2. Site Issues
 - a. Drainage
Drainage from the site is very poor with part of the rear of the building below grade and the bank sloughing against the building.
 - b. Snow
There does not appear to be a snow-drifting problem as the facility sits in the open.
3. Proximity of adjacent buildings
There are adjacent buildings that are close for an expansion, and are fine for the existing building. There is not adequate space for any expansion on the current site.
4. Utilities
 - a. Water Supply
The water supply is provided by well for each facility in the village.
 - b. Sewage Disposal
Sewage disposal is individual septic system.
 - c. Electricity
Power from Village system via overhead wire. See Photos
 - d. Telephone
Overhead phone with only one phone connection, requiring fax and phone on same line.

H. Existing Facility Floor Plan (Site Plans, New Clinic Plans, Regional Map):

We have attached drawings, as we have been able to identify, find, or create as part of this report. We have endeavored to provide all drawings for all the sites; however, in some cases exact existing site plans were not available. We have provided as indicated below:

- A1.1 Existing Site Plan is attached if available
- A1.2 Existing Facility Floor Plan is attached following.
- A1.3 The Existing typical wall section is attached following as required by the report guidelines.
- A2.1 The Addition to the Existing Facility as required to meet ARPCF Space Guidelines is attached following.
- A3.2 The New Denali Commission Clinic Floor Plan meeting the ARPCF Space Guidelines and proposed for this location is attached.

IV. Deficiency Evaluation

A. Deficiency Codes:

The deficiencies are categorized according to the following deficiency codes to allow the work to be prioritized for funding. The codes are as follows:

01 Patient Care: Based on assessment of the facilities ability to support the stated services that are required to be provided at the site. Items required for the patients social environment such as storage, privacy, sensitivity to age or developmental levels, clinical needs, public telephones and furnishings for patient privacy and comfort.

02 Fire and Life Safety: These deficiencies identify areas where the facility is not constructed or maintained in compliance with provisions of the state mandated life safety aspects of building codes including the Uniform Building Code, International Building Code, The Uniform Fire Code, NFPA 101, The Uniform Mechanical and Plumbing Codes and The National Electrical Code. Deficiencies could include inadequacies in fire barriers, smoke barriers, capacity and means of egress, door ratings, safe harbor, and fire protection equipment not covered in other deficiency codes.

03 General Safety: These deficiencies identify miscellaneous safety issues. These are items that are not necessarily code items but are conditions that are considered un-safe by common design and building practices. Corrective actions required from lack of established health care industry safety practices, and local governing body code safety requirements. I.e. Occupational Safety Health Administration (OSHA) codes & standards.

04 Environmental Quality: Deficiencies based on Federal, State and Local environmental laws and regulations and industry acceptable practices. For example this addresses DEC regulations, hazardous materials and general sanitation.

05 Program Deficiencies: These are deficiencies that show up as variations from space guidelines evaluated through industry practices and observation at the facility site and documented in the facility floor plans. These are items that are required for the delivery of medical services model currently accepted for rural Alaska. This may include space modification requirements, workflow pattern improvements, functional needs, modification or re-alignment of existing space or other items to meet the delivery of quality medical services. (Account for new space additions in DC 06 below)

06 Unmet Supportable Space Needs: These are items that are required to meet the program delivery of the clinic and may not be shown or delineated in the Alaska Primary Care Facility Space Guideline. Program modifications requiring

additional supportable space directly related to an expanded program, personnel or equipment shall be identified in this section; for example additional dental space, specialty clinic, storage, or program support space that requires additional space beyond the established program.

07 Disability Access Deficiencies: The items with this category listing are not in compliance with the Americans with Disabilities Act. This could include non-compliance with accessibility in parking, entrances, toilets, drinking fountains, elevators, telephones, fire alarm, egress and exit access ways, etc.

08 Energy Management: These deficiencies address the efficiency of lighting, heating systems/fuel types and the thermal enclosures of buildings, processes, and are required for energy conservation and good energy management.

09 Plant Management: This category is for items that are required for easy and cost efficient operational and facilities management and maintenance tasks of the physical plant.

10 Architectural M&R: Items affecting the architectural integrity of the facility, materials used, insulation, vapor retarder, attic and crawlspace ventilation, general condition of interiors, and prevention of deterioration of structure and systems.

11 Structural Deficiencies: These are deficiencies with the fabric of the building. It may include the foundations, the roof or wall structure, the materials used, the insulation and vapor retarders, the attic or crawl space ventilation and the general condition of interior finishes. Foundation systems are included in this category.

12 Mechanical Deficiencies: These are deficiencies in the plumbing, heating, ventilating, air conditioning, or medical air systems, interior mechanical utilities, requiring maintenance due to normal wear and tear that would result in system failure.

13 Electrical Deficiencies: These are deficiencies with normal or emergency power, electrical generating and distribution systems, interior electrical and communications utilities, fire alarm systems, power systems and communications systems within a building that should be repaired or replaced on a recurring basis due to normal wear and tear that would otherwise result in system failure.

14 Utilities M&R: This category is used for site utilities for incoming services to facilities that are required for the building to be fully operational. Deficiencies may include sewer and water lines, water wells, water tanks, natural gas and propane storage, electric power and telecommunications distribution, etc.

15 Grounds M&R: Real property grounds components that should be replaced on a recurring basis due to normal wear and tear. Deficiencies with respect to trees, sod, soil erosion, lawn sprinklers, parking, bridges, pedestrian crossings, fences, sidewalks & roadways, and site illumination etc. are considerations.

16 Painting M&R: Any painting project that is large enough to require outside contractors or coordination with other programs.

17 Roof M&R: Deficiencies in roofing, and related systems including openings and drainage.

18 Seismic Mitigation: Deficiencies in seismic structural items or other related issues to seismic design, including material improperly anchored to withstand current seismic requirements effect. The elements under consideration should include the cost incidental to the structural work like architectural and finishes demolition and repairs.

B. Photographs:

We have provided photographs attached which are noted to describe the various deficiencies described in the narratives and itemized in the summary below. The photos do not cover all deficiencies and are intended to provide a visual reference to persons viewing the report who are not familiar with the facility.

We have included additional photos as Appendix B for general reference. These are intended to add additional information to the specific deficiencies listed and to provide general background information.

C. Cost Estimate General Provisions

1. New Clinic Construction

- a. Base Cost: The Base Cost provided in Section VI of this report is the direct cost of construction, inclusive of general requirements (described below) and contingency for design unknowns (an estimating contingency). The base cost is exclusive of overhead and profit, mark-ups, area cost factors and contingencies. Material costs for the project are all calculated FOB Anchorage and labor rates are based on Davis Bacon wages, regionally adjusted to Anchorage. Transportation costs, freight, Per Diem and similar costs are included in the base costs. The Project Factors and Area Cost Factor are multipliers of the base costs.
 - General Requirements are based on Anchorage costs without area adjustment. It is included in the Base Cost for New Clinics. These costs are indirect construction cost not specifically identifiable to individual line items. It consists of supervision, materials control, submittals and coordination, etc. The general requirements factor has not been adjusted for Indian Preference.
 - The Design Unknowns Contingency is an estimator's contingency based on the schematic nature of the information provided, the lack of any real design, and the assumption that any project will encompass related work not specifically mentioned.
- b. Project Cost Factors
 - Equipment Costs for new medical equipment has been added at 17% of the cost of new floor space.
 - Design Services is included at 10% to cover professional services including engineering and design.
 - Construction Contingency is included at 10% of the Base Costs to cover changes encountered during construction.
 - Construction Administration has been included at 8% of the Base Costs. This is for monitoring and administration of the construction contract.
- c. Area Cost Factor: The Area Cost Factor used in the cost estimates for this facility is shown in Section VI of this report. The area cost factors are taken from a recent study completed for the Denali Commission for statewide healthcare facilities. The numbers are the result of a matrix of cost variables including such items as air travel, local hire costs, room and board, freight, fire protection equipment, foundation requirements, and heating equipment as well as contractor costs such as mobilization, demobilization, overhead, profit, bonds and insurance. These parameters were reconsidered for each village, following the site visit, and were modified, if necessary.
- d. Estimated Total Project Cost of New Building: This is the total estimated cost of the project, including design services. The construction contract will be work subject to Davis Bacon wages, and assumes construction before year-end 2001. No inflation factor has been applied to this data.

2. Remodel, Renovations, and Additions

- a. Base Cost: The Base Cost provided in the specific deficiency sheets is the direct cost of construction, exclusive of overhead and profit, mark-ups, area cost factors and contingencies. Material costs for the project are all calculated FOB Anchorage and labor rates are based on Davis

Bacon wages, regionally adjusted to Anchorage. Most of the deficiency items do not constitute projects of sufficient size to obtain efficiency of scale. The estimate assumes that the projects are completed either individually, or combined with other similar projects of like scope. The numbers include moderate allowances for difficulties encountered in working in occupied spaces and are based on remodeling rather than on new construction costs. Transportation costs, freight, Per Diem and similar costs are included in the base costs. The General Requirements, Design Contingency and Area Cost Factors are multipliers of the base costs.

- The cost of Additions to clinics is estimated at a unit cost higher than new clinics due to the complexities of tying into the existing structures.
 - Medical equipment is calculated at flat rate of approximately \$32 which is the same amount as used for Equipment for New Clinic Construction. It is included as a line item in the estimate of base costs.
- b. General Requirements Factor: General Requirements Factor is based on Anchorage costs without area adjustment. The factor is 1.20. It is multiplied by the Base Cost to get the project cost, exclusive of planning, architecture, engineering and administrative costs. This factor assumes projects include multiple deficiencies, which are then consolidated into single projects for economies of scale. The general requirements factor has not been adjusted for Indian Preference.
- c. Area Cost Factor: The Area Cost Factor used in the cost estimates for this facility is shown in Section VI of this report. The area cost factors are taken from a recent study completed for the Denali Commission for statewide healthcare facilities. The numbers are the result of a matrix of cost variables including such items as air travel, local hire costs, room and board, freight, fire protection equipment, foundation requirements, and heating equipment as well as contractor costs such as mobilization, demobilization, overhead, profit, bonds and insurance. These parameters were reconsidered for each village, following the site visit, and were modified, if necessary.
- d. Contingency for Design Unknowns (Estimating Contingency): The Design Unknowns Contingency is an estimator's contingency based on the schematic nature of the information provided, the lack of any real design, and the assumption that any project will encompass related work not specifically mentioned. The factor used is 1.15.
- e. Estimated Total Cost: This is the total estimated bid cost for work completed under Davis Bacon wage contracts, assuming construction before year-end 2001. This is the number that is entered in the front of the deficiency form. No inflation factor has been applied to this data.
- f. Project Cost Factors: Similar to new clinics, the following project factors have been included in Section VI of this report.
- Design Services is included at 10% to cover professional services including engineering and design.
 - Construction Contingency is included at 10% of the Base Costs to cover changes encountered during construction.
 - Construction Administration has been included at 8% of the Base Costs. This is for monitoring and administration of the construction contract.
- g. Estimated Total Project Cost of Remodel/Addition: This is the total estimated cost of the project including design services, the construction contract cost for work completed under Davis Bacon

wages and assuming construction before year-end 2001. No inflation factor has been applied to this data.

V. Summary of Existing Clinic Deficiencies

The attached sheets document the deficiencies; provide recommendations on how to make repairs or accommodate the needs and provide a cost estimate to accomplish the proposed modifications. The summary addresses individual deficiencies. If all deficiencies were to be addressed in a single construction project there would be cost efficiencies that are not reflected in this tabulation.

These sheets are reports from the Access Data Base of individual Deficiencies that are compiled on individual forms and attached for reference.

Refer to Section VI. New Clinic Analysis for a comparison of remodel/addition to new construction.

VI. New Clinic Analysis

The analysis of whether a new clinic is required is based on the Denali Commission standard of evaluation that "New Construction is viable if the cost of Repair/Renovation and Addition exceeds 75% of the cost of New Construction".

We have therefore determined the cost of a New Clinic Construction to meet the Alaska Rural Primary Care Facility (ARPCF) Space Guidelines for the size of village. We have also determined the cost to Repair/Renovation and Addition to the existing Clinic to meet the same ARPCF Space Guidelines.

A. The cost of a New Denali Commission 2000 SF Medium Clinic in Levelock is projected to be:

• Base Anchorage Construction Cost per sf.		\$183
• Project Cost Factor:	@ 45%	\$ 82
Medical Equipment	17%	
Construction Contingency	10%	
Design Fees	10%	
Construction Administration	8%	
• <u>Multiplier for Village</u>	<u>@ 1.30</u>	<u>\$ 80</u>
Adjusted Cost per SF		\$345
<hr/>		
Projected Cost of a New Clinic:	2000 sf. X \$345	= \$690,000

B. The cost of the Repair/Renovation and Additions for the existing Clinic are projected to be:

• Code & Condition Repairs/Renovations		
Cost from Deficiency Summary		\$387,721
• Remodel/Upgrade work (See Def. Code 01)		
100% of clinic 960 SF = 960 SF @ \$100/SF		\$100,900
• Additional Space Required by ARPCF – (See Def. Code 06)		
○ Base Anchorage Cost		\$226
Medical Equipment		\$ 32
Additional Costs –		\$ 98
General Requirements	20%	
Estimation Contingency	15%	
○ <u>Multiplier for Village</u>	<u>@1.30</u>	<u>\$107</u>
Adjusted Cost per SF		\$463
Total Addition Cost of 1040 SF @ \$463		\$481,324
• Project Cost Factor:	@ 28%	\$271,585
Construction Contingency	10%	
Construction Administration	8%	
Design Fees	10%	
<hr/>		
Total cost of remodel/addition		\$1,241,530

C. Comparison of Existing Clinic Renovation/Addition versus New Clinic:

Ratio of Renovation/Addition versus New Clinic is:

$$\text{\$1,241,530} / \text{\$690,000} = 1.80 \times \text{cost of New Clinic}$$

Based on Denali Commission standard of evaluation; the remodel/addition costs are more than 75% of the cost of new construction. A new clinic is recommended for this community.

* Note: Village factors may have been adjusted for recent 2001 cost adjustments and may have changed from previously published data distributed to the villages.

D. Overall Project Cost Analysis:

The overall project cost analysis below incorporates land, multi-use, utility costs, and road access costs, and project management fees if any are associated with the project.

Item	Quantity	Units	Unit Cost	Area Adjustment Factor	Total Cost	Allowable under "Small" Clinic Process (yes/no)
Primary Care Clinic (Allowable)	2000	SF	\$265.00	1.3	\$690,000	yes
Clinic (Non-allowable portion)	0	SF	\$265.64	1.3	\$0	no
Land	15,000	SF	\$2.00	1	\$30,000	yes
Multi-Use Facility Design Cost	0	LS	\$0.00	1	\$0	yes
Multi-Use Facility Construction Cost	0	LS	\$0.00	1	\$0	no
Utility Extension/Improvements	1	LS	\$15,000	1	\$15,000	yes
Road access & parking lot improvements	1	LS	\$5,000	1	\$5,000	yes
Subtotal Project Cost					\$740,000	
Project Management Fees					<u>Unknown</u>	
Total Project Cost					Unknown	

VII. Conclusions and Recommendations

The existing Levelock Clinic has served the community well for many years. Base on current ANTHC and BBAHC delivery model for health care to rural Alaska, the facility is not adequate in size or in condition to meet these needs. The existing structure could be adapted for many other less clinical and medically stringent uses without extensive remodeling.

After careful review it is the recommendation of the consultant team that a new Denali Commission 2000 SF Medium Clinic be considered for Levelock. The addition of approximately 1040 sf of clinic space required by the current ARPCF Program Space Guidelines and the major renovation and upgrading of the existing clinic space will cost 1.80 times the cost of a new clinic. This results in the recommendation of a new clinic for this village.

We reviewed the options with the local community leaders the consensus was that the New Medium Clinic would meet the current community needs and for years to come. In addition, they agreed that there is a good site that is available for construction of a new clinic. The site is adjacent to all existing utilities.

The community believes this is a good solution and will produce the best return for funds invested in a clinic that meets the needs of Levelock Community and is aggressively moving to assist in any way to accomplish this goal.

Appendix A: Specific Deficiencies Listings

The attached sheets represent the individual deficiencies identified for this project and the corrective action required to meet current codes and standards of construction. The deficiencies are further summarized in Section V. Summary of Existing Clinic Deficiencies.